

Wenham Lake Watershed Association



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May 31, 2001

By Registered Mail

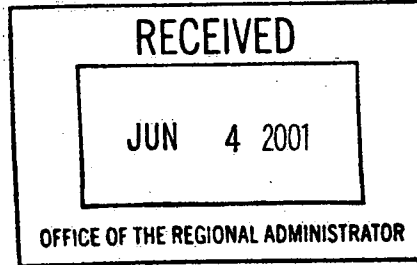
Thomas W. Knowlton

Superintendent

Salem and Beverly Water Supply Board

50 Arlington Avenue

Beverly, MA 01915



cc: N Smith
B Pitt
J Fowley
D Diener
K Moreau
K Rote
J Blumstein
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Re: Notice of Citizen Suit under Section 505(b) of the Clean Water Act, 33 U.S.C. 1365, Section 310 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9659, and Section 7002 of the Resource Conservation and Recovery Act, 42 U.S.C. 6972

Dear Superintendent Knowlton:

E Goldman
A Williams
Correy

The Wenham Lake Watershed Association ("WLWA"), on its own behalf and on behalf of its adversely affected members, hereby gives notice of its intent to file suit against the Salem and Beverly Water Supply Board (the "Board") in accordance with the citizen suit provisions of Section 505(b) of the Federal Water Pollution Act, the Clean Water Act (CWA), 33 U.S.C. 1365(b)(1) and the regulations promulgated thereunder at 40 CFR Part 135, Section 310 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. 9659(d)(1) and Section 7002(b)(2)(A) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6972(b)(2)(A).

The Board is discharging pollutants into Wenham Lake, the drinking water source for more than 80,000 people in Beverly, Salem and Wenham. In addition, the Board has been disposing of waste containing toxic chemicals onto land adjacent to the water treatment plant. These acts are in violation of federal and state law. Under the Clean Water Act, the Board is in violation of discharging pollutants into a drinking water source without a permit. Discharges into the waters of the United States without a National Pollution Discharge Elimination System (NPDES) permit violates the Clean Water Act, 33 U.S.C. 1365(a)(1). The Board, in violation of CERCLA, has failed to notify authorities of reportable quantities of hazardous substances released to the environment as required by Section 102 of CERCLA, 42 U.S.C. 9602, and the regulations promulgated thereunder at 40 C.F.R. 302.4. The Board's dumping of water treatment sludge and sludge leachate (hereinafter "sludge") into the lake and onto adjacent land may also present an imminent and substantial endangerment to health or the environment under RCRA, 42 U.S.C. § 6972(a)(1)(B). The sludge the Board is releasing into the environment contains pollutants, including such toxic metals as aluminum, arsenic and manganese, and the Board is

releasing them at unlawful and often extraordinarily high levels into a public water supply. These are not substances that disappear or disperse with the passage of time – they will last in the environment, continue to threaten the drinking water of tens of thousands of people, and build up in organisms for many years after the Board has ceased releasing them.

The Board's unlawful conduct recently came to light when the Massachusetts Department of Environmental Protection (MA DEP) ordered the Board to respond to WLWA's charges that the Board's practices were polluting the lake and surrounding environment. In responding, the Board's recently hired engineers, Stearns and Wheeler, disclosed that the Board had secretly conducted several engineering studies in the 1990s. Due to the efforts of Councilor Kevin Harvey and the demands of the Salem City Council, the Board was finally forced to produce copies of these reports to the public.

The concealed studies revealed that the Board's present and past illegal disposal practices have resulted in extensive contamination of the plant site and the deposition of several feet of metal-contaminated sludge over a wide area of the lake, including the water intake area. As indicated by the studies, these practices have adversely affected the health of the lake.

In dereliction of their legal obligations and responsibilities as a public agency, the Board never disclosed these reports to the appropriate federal, state or local officials or to the public. This, despite persistent requests for disclosure of such information and acknowledgement of the Board's potentially environmentally damaging practices by the Beverly Conservation Commission and its chairman, David Lang.

According to studies done for the Board in 1997 by Malcolm Pirnie, Inc. (entitled "Residuals Management Plan" dated February 1997 and "Reservoir Residuals Characterization" dated July 1999), the following is evident and constitutes actionable grounds for WLWA's intended citizen suit:

The Board operates a water treatment plant, the Arlington Avenue Treatment Plant ("the Plant"), to treat a surface water supply in Beverly, Massachusetts. The plant has a design capacity of 24 MGD and an average flow of 10 MGD. A portion of the residuals or sludge generated at the Plant are currently being discharged into a sanitary sewer through a holding tank; the remainder is discharged into a sludge dewatering lagoon adjacent to the Plant and located on the lake. The sludge dewatering lagoon, which also receives the filter backwash water, is too small to handle the influent flow. Consequently, little or no settling occurs, and the lagoon has been rendered practically ineffective. As a result, sludge contaminated effluent entering the lagoon is overflowing directly into Wenham Lake.

The sludge effluent flowing into Wenham Lake and disposed of on the adjacent land contains extremely high levels of aluminum, as well as significantly elevated concentrations of arsenic, iron, copper, lead, manganese and other toxic chemicals. Aluminum is a suspected human neurotoxin and is toxic to marine organisms at elevated levels. Aluminum in the sediment of Wenham Lake, due to sludge deposition, has been detected at levels above 110,000 mg/kg, which is over 12 times the amount of aluminum found in natural soils and sediment.

Aluminum in the water of Wenham Lake has exceeded EPA's Secondary Maximum Concentration Levels (SMCL) for drinking water.

Arsenic, a known carcinogen, was detected in the disposal area at levels over 50 parts per million (ppm) in the sediment, a level more than twice background soil levels. A sample of unfiltered surface water from the disposal area taken by WLWA in February 2001 revealed 99 parts per billion (ppb) of arsenic in the water, almost twice the current Maximum Contaminant Level (MCL) for drinking water (and 20 times the proposed new standard). Prolonged exposure to arsenic at levels above the MCL is associated with lung, skin, bladder and liver cancer, as well as skin damage and circulatory system problems. Arsenic has a tendency to bioaccumulate in fish, and is listed as a hazardous substance under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Very high levels of manganese, iron, copper, lead and nickel were also detected in the disposal area near the plant and in the lake sediments. EPA has listed nickel near the top among 156 candidates for its RCRA Waste Minimization List of Persistent, Bioaccumulative, and Toxic (PBT) priority chemicals. Manganese is a neurological and suspected reproductive toxicant and has been documented in water of Wenham Lake at levels almost six times the SMCL for drinking water. The manganese level in leachate from the disposal area contained over 260 times the SMCL. Lead is a well-known neurotoxin which is particularly devastating to a child's developing central nervous system.

According to these studies, the Plant has discharged the sludge lagoon overflow into Wenham Lake for several decades. From 1980 to 1997, the Plant has discharged approximately 2,300 dry tons of solids to the existing sludge lagoon. Of these 2,300 dry tons, approximately 1,400 dry tons have been retained by the lagoon. The report estimates, therefore, that the amount of sludge discharged into the reservoir from 1978 to 1997 was 900 dry tons. This estimate does not include the hundreds of tons that have been discharged after 1997.

Also according to the studies referenced above, the sludge has predominantly been deposited in an area within 300 feet of the intake. The area most severely affected is approximately 24,000 square feet, with a sludge layer of approximately 22 inches thick based on core sampling. It is estimated that approximately 1,600 cubic yards of sludge are deposited in this area. In addition, an additional 9,000 cubic yards of sludge are more broadly distributed, covering approximately 130,000 square feet and extending to the Plant's intake.

The Malcolm Pirnie studies also revealed that these practices have dramatically affected the health of the lake. In its July 1997 report entitled "Reservoir Residuals Characterization," Malcolm Pirnie investigated the effect of sludge deposition on the lake's animal life. The study concluded that the benthic biodiversity of Wenham Lake was low throughout the tested area and extremely low in the most impacted area which was examined. The study *did not* investigate the most heavily contaminated area of the lake. The report concluded that the presence of aluminum sludge in the lake may be a cause of the low benthic diversity of the lake.

The February 1997 Malcolm Pirnie report outlined the specific management practices and technological changes that would have to be instituted in order to bring the Plant into

compliance with law. The report also specified in detail several options open to the Board to rectify the situation and their attendant costs. Despite this, the Board chose to ignore the findings and recommendations of its own engineers and failed to disclose the data, conclusions and even the existence of the reports to the public and public officials. Most importantly, the Board failed to make the changes necessary to protect the environment, the lake and this major public drinking water source.

For these reasons, WLWA is putting the Board on notice that unless the Board consents within the next 90 days to change its practices and bring the Board into compliance with law, WLWA intends to file suit in a court of appropriate jurisdiction.

Very truly yours,



Jan Schlichtmann

President

Wenham Lake Watershed Association

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